

## REMARKS

The Office Action dated May 22, 2008 has been fully considered by the Applicant.

Enclosed is a Petition for One-Month Extension of Time and a check to cover the government fee. Also, attached are two Terminal Disclaimers To Obviate A Double Patenting Rejection and a check to cover the government fees.

Claims 1-4, 9-10, 12-13, 16-20, 22, and 29-30 have been previously presented. Claims 5-8, 11, 14-15, and 26-28 have been currently amended. Claims 21, and 23-25 have been canceled. new claim 31 has been added.

The specification has been objected to because the abstract contained a sentence that could be implied. Applicant has amended the Abstract to overcome the objection.

The drawings have been objected to under 37 CFR 1.83(a) for not showing the features recited in claims 23-25. Claims 23-25 have been currently amended, making the objection moot.

Claim 16 has been objected to for having informalities. The Examiner indicated that the informality was that “the is frontal opening” did not make sense. Applicant agrees that this phraseology does not make sense, however, this phraseology does not appear in Applicant’s amended claim 16. Instead, Applicant’s amended claim 16 reads “on the ~~this~~ frontal opening”. No further amendment has been made to claim 16 since Applicant believes that it is proper.

Claim 19 has been objected to because of a typographical error. Claim 19 has been currently amended to change “allo” to --alloy--.

Examiner Whittington has objected to claim 22 because “said waveguide” lacks antecedent basis. Application respectfully disagrees. Dependent claim 22 depends upon independent claim 8 wherein a waveguide is a positively recited element.

Claims 1 and 8 have been rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 13 of United States Patent No. 7,329, 129.

Applicant herein submits a Terminal Disclaimer to overcome the double patenting rejection.

Claim 25 has been rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Claim 25 has been currently canceled, making the rejection moot.

Claims 1-10, 12, 20, 22 and 26 as rejected under 35 USC § 102(b) as being anticipated by United States Patent No. 5,680,041 to Begin are respectfully traversed.

Examiner Whittington apparently interprets the outer housing 40 of the system disclosed by the '041 Begin patent as "a flux guide unit" in the sense of the present invention. However, the functionality of a flux guide unit is to guide magnetic flux to shield the coil from magnetic stray fields. Thus, a flux guide unit usually is of a very high magnetic permeability.

In the system disclosed by the '041 patent, however, neither outer housing 40 nor brass tube 18 may have any magnetic shielding functionality. On the contrary, it is crucial that the magnetostrictive wire waveguide 16 (being positioned inside housing 40 and tube 18) picks up the magnetic field of the moveable toroidal permanent magnet 58 (being positioned outside of housing 40 and tube 18) in order to sense the position of moveable element 12. Without this, the position measurement apparatus of the '041 Begin patent would not work at all.

Therefore, it is obvious that outer housing 40 and brass tube 18 must be somewhat magnetically transparent, which is the contrary to the features of Applicant's flux guide unit. Thus, the '041 Begin patent does not disclose a flux guide unit.

The statement made by Examiner Whittington that steel has a high permeability is irrelevant in this context since there are numerous kinds of steel with all possible features. However, the steel disclosed in Begin may not have a specifically high magnetic permeability which is necessary to work as a flux guide unit in the sense of Applicant's claim 1.

Additionally, it is rather questionable whether outer housing 40 may be interpreted as "being assigned to the detector coil" in the sense of Applicant's claim 1.

Claims 2-7 depend upon independent claim 1 and are believed to be patentable over the '041 Begin patent for the same reasons as set forth above.

Claim 8 has been currently amended to depend upon independent claim 1 and is believed to be patentable over the '041 Begin patent for the reasons as set forth above. Claims 9, 10, 12, 20 and 22 depend upon currently amended claim 8 and are believed to be patentable over the '041 patent as stated above. Claim 26 has been amended to depend upon dependent claim 6 which depends upon independent claim 1 and is believed to be patentable over the '041 Begin patent as stated above.

Claims 11, 13-17, 27 and 28 are rejected under 35 USC § 103(a) as being unpatentable over United States Patent No. 5,680,041 to Begin in view of United States Patent No. 2,511,178 to Roters as respectfully traversed.

Claims 11, 13-17, 27 and 28 depend upon claim 8 which has been currently amended to depend from independent claim 1. Therefore, it is believed that claims 11, 13-17 are patentable over the cited patents for the reasons stated herein above.

Claims 18, 19, 29 and 30 are rejected under 35 USC § 103(a) as being unpatentable over United States Patent No. 5,680,041 to Begin in view of United States Patent No. 2,511,178 to Roters as applied to claim 14, and further in view of United States Patent No. 4,864,232 to Redlich as respectfully traversed.

Claims 18, 19, 29 and 30 are dependent claims and are believed patentable over the cited patents for the reasons stated herein above.

Claims 23 and 24 have been rejected under 35 USC § 103(a) as being unpatentable over United States Patent No. 5,680,041 to Begin in view of United States Patent No. 2,713,263 to Turner. Claims 23 and 24 have been currently canceled.

Claim 25 has been rejected under 35 USC § 103(a) as being unpatentable over United States Patent No. 5,680,041 to Begin in view of United States Patent No. 2,713,263 to Turner as applied to claim 23 and further in view of United States Patent No. 2,511,178 to Roters. Claim 25 has been currently canceled.

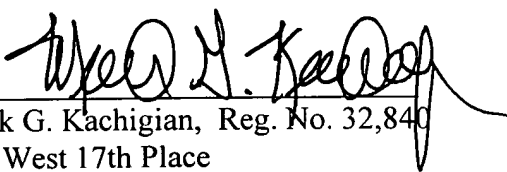
Finally, new independent claim 31 has been added which amends claim 1 to clearly convey that the flux guide unit is also a shielding unit and can be selectably formed to shield detector coils from stray magnetic fields, in contrast to Begin as set forth above.

It is believed that the application is now in condition for allowance and such action is earnestly solicited. If any further issues remain, a telephone conference with the Examiner is requested. If any further fees are associated with this action, please charge Deposit Account No. 08-1500.

Respectfully Submitted

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